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TITLE: Lithium ion secondary battery and method of fabricating the same

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87 parts by weight of LiCoO.sub.2, 8 parts by weight of powdered graphite and 8
parts by weight of a polyvinylidene fluoride were dispersed in
N-methylpyrrolidone (hereinafter referred to as "NMP") to prepare an positive
electrode active material paste. The positive electrode active material paste
thus prepared was then formed into a thin active material layer having a
thickness of 300 .mu.m by a doctor blade coating method. On the top of the
thin active material layer thus formed was then placed an aluminum net having a
thickness of 30 .mu.m as a positive electrode collector. Onto the top of the
aluminum net was then coated the positive electrode active material paste to a
thickness of 300 .mu.m by a doctor blade coating method. The coated material
was then allowed to stand in a 60.degree. C. drier for 60 minutes so that it
was half-dried to form a laminate of a positive electrode collector 2 and an
active positive electrode. The laminate was then rolled to a thickness of 400
.mu.m to prepare a positive electrode 1 comprising an positive electrode active
material layer 3 formed thereon. The positive electrode 1 was dipped in an
electrolytic solution, and then measured for peel strength of the positive
electrode active material layer 3 with respect to the positive electrode
collector 2. The results were from 20 to 25 gf/cm.

The negative electrode 4 was dipped in an electrolytic solution, and then measured for peel strength of the negative electrode active material layer 6 with respect to the negative electrode collector 2. The results were from 10 to 15 gf/cm.

The lithium ion secondary batteries obtained in the foregoing Embodiments 1 to 11 and Comparative Examples 1 to 3 were then evaluated for properties. Table 1 shows the results of measurement of the adhesive strength (peel strength) of the positive electrode 1 and the negative electrode 4 with respect to the separator 7 and the electrical resistivity of the battery (cell).

TABLE 1 Peel strength (gf/cm) Cell Positive Negative electrical electrode/ electrode/ resistivity Example No. separator separator (.OMEGA.) Embodiment 1 18 10 22 Embodiment 2 15 13 23 Embodiment 3 19 11 25 Embodiment 4 23 33 31 Embodiment 5 20 40 35 Embodiment 6 26 19 20 Embodiment 7 27 21 21 Embodiment 8 26 35 21 Embodiment 9 25 37 20 Embodiment 10 25 36 22 Embodiment 11 26 35 23 Comp.Example1 31 33 150 Comp.Example2 0 0 20 (immeasurable) (immeasurable) Comp.Example3 0 0 20 (immeasurable) (immeasurable)